

## CLAIMS

1. A radio communication network software downloading method,  
comprising:

communicating terminal unique information for the downloading of  
common software content from the network to a plurality of terminals in the  
network on corresponding dedicated communication channels for each terminal;

transmitting the common software content from the network to the  
plurality of terminals on a shared communication channel.

2. The method of Claim 1,  
receiving a request for the common software content from a plurality  
of terminals on corresponding dedicated communication channels for each  
terminal,

transmitting the common software content from the network to the  
plurality of terminals making the request on the shared communication channel  
after receiving the request;

receiving confirmation from each of the plurality of terminals that  
received the software content on corresponding dedicated communication  
channels for each terminal after transmitting.

3. The method of Claim 1,  
sending a message to a plurality of terminals on corresponding  
dedicated communication channels to receive the common software content on a  
shared channel;

transmitting the common software content from the network to the plurality of terminals on the shared channel after sending the message;

receiving confirmation from each of the plurality of terminals that received the common software content on corresponding dedicated communication channels for each terminal after transmitting.

4. The method of Claim 1, receiving confirmation from each of the plurality of terminals that received the common software content on corresponding dedicated communication channels for each terminal after transmitting.

5. The method of Claim 1,  
transmitting a digital signature from the network to a plurality of terminals over corresponding dedicated communication channels for each terminal;

transmitting the common software content from the network to the plurality of terminals on the shared communication channel after transmitting the digital signature.

6. The method of Claim 1, multiplexing a plurality of different common software content on the shared communication channel, dynamically adjusting the plurality of different common software content multiplexed on the shared communication channel.

7. The method of Claim 6, dynamically adjusting the plurality of different common software content in proportion to a changing number of the plurality of terminals receiving the plurality of different common software content.

8. The method of Claim 6, dynamically adjusting the plurality of different common software content based on a priority factor.

9. A radio communication network software downloading method, comprising:

transmitting software content from a radio communication network to a plurality of terminals in the network by multiplexing the software content on a shared communication channel received by the plurality of terminals;

dynamically adjusting the software content multiplexed on the shared communication channel.

10. The method of Claim 9, dynamically adjusting the software content multiplexed on the shared communication channel from a radio device management server in communication with the radio communication network.

11. The method of Claim 9, the software content comprises a plurality of different software files, dynamically adjusting the software content

multiplexed on the shared communication channel by adjusting a transmission time of each of the plurality of software files.

5                   12. The method of Claim 9, the software content comprises a plurality of different software files, dynamically adjusting the software content multiplexed in the shared communication channel by adjusting the number of times each of the plurality of files is transmitted.

10                   13. The method of Claim 9, the software content comprises a plurality of software files, dynamically adjusting the software content multiplexed on the shared communication channel by prioritizing the transmission of software files that generate greater amounts of revenue relative to the transmission of software files that generate lesser amounts of revenue.

15                   14. The method of Claim 9, the software content comprises a plurality of software files, dynamically adjusting the software content multiplexed on the shared communication channel by prioritizing the transmission of more essential software files over the transmission of less essential software files.

20                   15. The method of Claim 9, the software content comprises a plurality of software files, dynamically adjusting the software content multiplexed on the shared communication channel based upon at least one of file size and a number of the plurality of terminals receiving the software files.

16. The method of Claim 9,

receiving confirmation from each of the plurality of terminals that  
received the software content on corresponding dedicated communication  
channels for each terminal after transmitting.

17. The method of Claim 9, fragmenting the software content  
multiplexed on the shared channel by packetizing the software content.

18. A radio communication network software downloading method,  
comprising:

transmitting a digital signature from the network to a plurality of  
terminals over dedicated communication channels for each terminal;

transmitting the software content from the network to the plurality  
of terminals on a shared communication channel after transmitting the public key.

19. The method of Claim 18,

receiving confirmation from each of the plurality of terminals that  
received the software content on corresponding dedicated communication  
channels for each terminal after transmitting.